

ORIGINAL



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BEFORE THE ARIZONA CORPORATION COMMISSION

52

COMMISSIONERS:

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MIKE GLEASON
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BARRY WONG

2006 AUG 31 P 2:18

AZ CORP COMMISSION
DOCUMENT CONTROL

IN THE MATTER OF TUCSON ELECTRIC) DOCKET NO. L-000007-95-0084
POWER COMPANY'S REQUEST FOR AN)
EXTENSION OF TIME ON THE CERTIFICATE)
OF ENVIRONMENTAL COMPATIBILITY FOR A) Case No. 84
PORTION OF PHASE II TO THE CYPRUS)
SIERRITA SUBSTATION)

**TUCSON ELECTRIC POWER COMPANY'S
COMPLIANCE FILING PURSUANT TO
DECISION NO. 68799**

Tucson Electric Power Company (TEP) hereby files a report addressing the Marley Cattle condemnation status (attached herein as Exhibit A) and a engineering planning memorandum addressing load forecasts and alternatives for the portion of the certificated project not yet constructed (attached herein as Exhibit B), as required by Decision No. 68799.

RESPECTFULLY SUBMITTED this 31st day of August 2006.

TUCSON ELECTRIC POWER COMPANY

Arizona Corporation Commission
DOCKETED

AUG 31 2006

DOCKETED BY	MP
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By

J. Matthew Derstine
Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Attorneys for Tucson Electric Power Co.

1 Original and 25 copies of the foregoing
2 filed this 31st day of August 2006 with:

3 Docket Control
4 Arizona Corporation Commission
5 1200 West Washington Street
6 Phoenix, Arizona 85007

7 Copy of the foregoing hand-delivered/mailed
8 this 31st day of August 2006 to:

9 Lyn A. Farmer, Esq.
10 Chief Administrative Law Judge
11 Hearing Division
12 Arizona Corporation Commission
13 1200 West Washington Street
14 Phoenix, Arizona 85007

15 Christopher Kempley
16 Chief Counsel
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18 Arizona Corporation Commission
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25 Phoenix, AZ 85007

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27 Compliance, Utilities Division
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1200 W. Washington Street
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By 

EXHIBIT

"A"

Exhibit A

TUCSON ELECTRIC POWER COMPANY'S STATUS OF MARLEY CATTLE CO. CONDEMNATION

A condemnation case for a transmission line right-of-way needed to complete construction of a portion of the certificated project in Case No. 84 was filed in Pima County Superior Court on Dec. 7, 2005 (*Tucson Electric Power Co. v. Marley Cattle Company and Corrigan Real Estate Investment LLC*, Case No. C20056718).

The parties negotiated an out-of-court settlement, and agreed to a Right of Way Easement that was recorded on June 7, 2006 at 12820/3753 of Pima County Records. A copy of the Easement is attached hereto.

A Notice of Settlement and a Notice of Dismissal was filed with the Court on June 15, 2006, thus resolving the action.

F. ANN RODRIGUEZ, RECORDER

RECORDED BY: NMB

DEPUTY RECORDER

1134

AS1

OTEP

TUCSON ELECTRIC POWER

P O BOX 711

220 W 6TH

TUCSON AZ 85702



DOCKET: 12820

PAGE: 3753

NO. OF PAGES: 4

SEQUENCE: 20061090657

06/07/2006

EASMENT 17:30

PICKUP

AMOUNT PAID \$ 9.00

RIGHT OF WAY EASEMENT

Marley Cattle Company, an Arizona general partnership
and
Corrigan Real Estate Investment, LLC, an Arizona limited liability company

(hereinafter referred to as "Grantor"), hereby grants to Tucson Electric Power Company, an Arizona corporation, its successors and assigns (hereinafter referred to as "Grantee"), an easement and right of way to construct, use, maintain, operate, alter, add to, repair, replace, reconstruct, inspect and remove at any time and from time to time electric lines and appurtenant facilities for the transmission and distribution of electricity, consisting of wires, underground conduits, cables, communication lines, vaults, manholes, handholes, and including above-ground enclosures, markers, concrete pads, risers, poles, anchors, guy wires and other appurtenant fixtures and equipment necessary or useful for distributing electrical energy in, over, under, across and along that certain real property described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF

Grantor agrees for itself, its successors and assigns, not to erect, place or maintain, nor to permit the erection, placement or maintenance of any building, landscaping, earth fill, walls or fences upon the above herein described easement, which would impair the repair, maintenance or removal of any or all of the facilities. All systems, including electrical and communication installed by Grantee in and upon the above described easement and right of way shall remain the personal property of the Grantee and shall not be deemed a part of the realty.

Grantee and its contractors, agents and employees shall have the right to trim or top such trees and to cut such roots and remove such obstacles that could endanger or interfere with said systems and shall have free access to said systems and every part thereof, at all times, for the purpose of exercising the rights herein granted.

Grantee shall have the right during construction of the initial facilities, to use for the purposes incidental to said construction, a strip of land 15 feet in width adjacent and contiguous to the herein-granted easement and right of way, said strip to be in whole or in part on each side of said easement and right of way, said right to use said strip of land ceasing and being terminated at such time as said initial construction is completed.

Grantor shall not increase or decrease the ground surface elevation within the boundary of the above described easement and right of way after approved final grade is established and meets Grantee's construction standards. Subsequent to the construction, the ground surface shall not be penetrated to a depth in excess of 12 inches by any tool or implement, without having the underground facilities located and taking all necessary precautions to protect them. If subsequent to construction, Grantor changes the grade in such a way as to require relocation of the facilities, the cost shall be borne by Grantor or subsequent owners.

Grantee agrees that following any installation, excavation, maintenance, repair or other work by Grantee within the easement premises, the affected area will be restored by Grantee to as close to original condition as is reasonably possible, at the expense of Grantee.

The benefits of this easement run solely in favor of Grantee and this instrument may solely be enforced by Grantee. There are no beneficial rights or rights of enforcement of this easement in favor of any third party. Utility companies other than Grantee wishing to use the easement premises shall obtain the prior written consent of Grantor and Grantee for the location of lines and facilities within the easement premises.

TUCSON COUNTY

In consideration of the mutual terms, covenants and conditions herein contained, this easement shall be binding upon and inure to benefit of any heirs, executors, administrators, permittees, licensees, agents, or assigns of Grantor and any successors and assigns of Grantee.

In witness hereof, the Grantor has executed these presents this 8 day of May, 2006.

Marley Cattle Company, an Arizona general partnership

BY: [Signature]

AS: Manager of Corrigan Land Livestock, LLC, its general partner

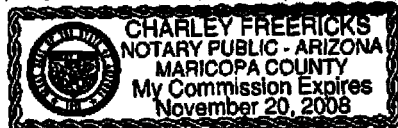
Corrigan Real Estate Investment, LLC, an Arizona limited liability company

BY: [Signature]

AS: manager

STATE OF)
COUNTY OF) ss.

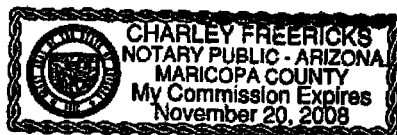
This instrument was acknowledged before me, the undersigned notary public, by Stephen Michael Corrigan this 8th day of May, 2006, as Manager of General Partner for Marley Cattle Company, an Arizona general partnership.



[Signature]
Notary Public

STATE OF)
COUNTY OF) ss.

This instrument was acknowledged before me, the undersigned notary public, by Stephen Michael Corrigan this 8th day of May, 2006, as Manager for Corrigan Real Estate Investment, LLC, an Arizona limited liability company.



[Signature]
Notary Public

1-000000 0000-0000

EXHIBIT "A"

A strip of land fifty (50) feet wide lying within that certain real property described and recorded in Book 1002 at Page 452 in the Office of the Recorder, Pima County, Arizona, said strip more particularly located within the north half of Section 32, Township 18 South, Range 13 East, Gila and Salt River Meridian, Pima County, Arizona, the centerline of which is described as follows:

Commencing at the northeast corner of said Section 32;

Thence South $00^{\circ} 25' 35''$ East, 1477.60 feet along the east line of said north half of Section 32 to a point on the north side line of an existing easement described and recorded in Book 3400 at Page 380 in the Office of the Recorder, Pima County, Arizona;

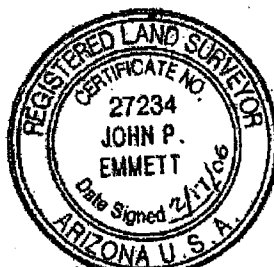
Thence North $46^{\circ} 31' 58''$ West, 1337.98 feet along said northerly side line to the beginning of a curve concave to the southwest and having a radius of 731.78 feet;

Thence continuing along said northerly side line northwesterly along the arc of said curve 237.56 feet through a central angle of $18^{\circ} 36' 02''$ to a point of non-tangency and, also being, the POINT OF BEGINNING;

Thence North $38^{\circ} 55' 40''$ West, 474.47 feet to a point on the south line of real property described and recorded in Docket 12055 at Page 7437 in the Office of the Recorder, Pima County, Arizona, known within as Parcels G & H, aforesaid point being the terminus of said centerline, wherefrom said terminus point is a point located on the north line of said Section North $01^{\circ} 11' 19''$ West, 25.00 feet and from which the northeast corner of said section bears North $88^{\circ} 48' 41''$ East, 1454.73 feet.

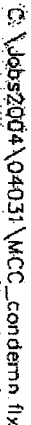
The side lines of the above-described strip to be shortened or lengthened to terminate on the South by the northerly side line of the existing easement described and recorded in Book 3400 at Page 380 and on the North by the south line of the real property described and recorded in Docket 12055 at Page 7437, both instruments on record in the Office of the Recorder, Pima County, Arizona.

The above-described strip of land contains 23,807.8 sq. ft. or 0.547 acres, more or less.



John P. Emmett

1-1000000 000-1000



EXHIBIT

"B"

Exhibit B

TEP Final Transmission Planning Memo 06-03

To: Sam Rugel, Hank Sniecikowski

Cc: Lee Aitken, Ed Beck, Buddy Crill, Elizabeth Firkins, Mike Flores, Susan Flores, Susan Gray, Dennis Marsh, Don McAdams, Les Robertson, Joe Sheehey, Leland Snook, John Tolo, Ken Wright, G:\

From: Andy Meyer

Date: August 23, 2006

Subject: South-Green Valley-Canoa Ranch 138 kV line Extension to Cyprus Sierrita

Transmission Planning recommends that completion of the 138kV line between Canoa Ranch and Cyprus Sierrita be postponed until 2013. In the interim, the existing 46 kV system in the Green Valley area should continue to be used to back up the 138 kV radial. In 2012 work should begin to extend the 138 kV beyond Canoa Ranch to complete a loop with the existing Cyprus Sierrita yard. This will require extending the term of the Certificate of Environmental Compatibility (CEC) granted to TEP under ACC Case 84, Decision No. 59221 in order for the project to be completed in 2013. This decision originally expired on August 8, 2006, and an extension was granted which is set to expire on December 31, 2006.

Though there is 7.6 MVA of load at risk through 2012, this recommendation is based on:

- the high reliability of the 138 kV circuit serving Green Valley substation
- the small chance that the 46 kV system used to back up this load would be out of service
- the ability to shed adequate load in the Green Valley area during the 57 hours of on-peak conditions during which the 46 kV system can not carry the load in 2012.

BACKGROUND

Green Valley's transmission needs are met by 138 kV and 46 kV circuits originating at TEP's South substation (exhibit A). The 138 kV circuit is a radial serving the Green Valley substation and will serve the Canoa Ranch station in 2009. The 46 kV system is comprised of two 46 kV circuits, 46-C-550 and 46-C-552. The transformers served by this transmission include:

- Canoa T1 46/13.8 kV, 4.7 MVA, 5.6 MVA Emergency
- Cyprus Esperanza T2 46/13.8 kV, 9.4 MVA, 11.3 MVA Emergency
- Cyprus Raw Water T2 & T3 46/13.8 kV, 4.7 MVA, 5.6 MVA Emergency, each
- Green Valley T1 & T2 46/13.8 kV, 25.0 MVA, 30.0 MVA Emergency, each
- Green Valley T3 138/13.8 kV, 50 MVA, 60.0 MVA Emergency
- Canoa Ranch T1 (future) 138/13.8 kV, 50 MVA, 60.0 MVA Emergency

The two 46 kV transformers at Green Valley (T1 & T2) are used strictly as back up and are not loaded under normal conditions. Load is transferred to these units in 3 seconds via an automatic throw-over (ATO) scheme that senses loss of voltage from the 138 kV source.

Capacity of the existing 138 kV radial is 331 MVA (1386 A) which, under normal operating conditions with no contingencies, is more than adequate to serve the Green Valley and Canoa Ranch substation load well past 2027, as shown in the following table:

138 kV Loading w/ Canoa Ranch															
Substation	Rating	2008	2009	2010	2011	2012	2013	2014	2015	2017	2019	2021	2023	2025	2027
Green Valley 138 kV	50.0	49.2	43.3	45.0	46.8	48.7	50.5	52.4	54.3	58.0	61.7	65.4	69.1	72.8	76.5
Canoa Ranch 138 kV	50.0		20.7	22.6	23.6	24.9	26.1	27.3	28.5	31.0	33.4	35.8	38.3	40.7	43.1
		49.2	64.0	67.6	70.5	73.6	76.6	79.7	82.8	88.9	95.1	101.2	107.4	113.5	119.7

However, this table also indicates that additional 138/13.8 kV transformer capacity will be needed to serve load at Green Valley substation in 2014 unless load is transferred to the Canoa Ranch station. In which case, additional transformer capacity can be deferred until 2021.

CONTINGENCY OPERATION

Loss of the 138 kV radial requires that the existing 46 kV system be available to back up the 138 kV system. Forecast load in Green Valley is anticipated to exceed the capability of the 46 kV to serve its own load, and back up loss of the 138 kV radial, as early as 2009:

46 kV Backup Capacity																
Substation	Rating	Emergency Rating	2008	2009	2010	2011	2012	2013	2014	2015	2017	2019	2021	2023	2025	2027
Green Valley 138 kV(1)	0.0	0	-49.2	-43.3	-45.0	-46.8	-48.7	-50.5	-52.4	-54.3	-58.0	-61.7	-65.4	-69.1	-72.8	-76.5
Canoa Ranch 138 kV(1)	0.0	0		-20.7	-22.6	-23.6	-24.9	-26.1	-27.3	-28.5	-31.0	-33.4	-35.8	-38.3	-40.7	-43.1
Cyprus Raw Water T-2 & T-3	9.4	11.3	0.0	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Cyprus Esparanza T-2	9.4	11.3	-0.5	1.0	0.6	0.2	-0.2	-0.6	-1.0	-1.5	-2.3	-3.1	-3.9	-4.7	-5.5	-6.3
Canoa T-1	4.7	5.6	1.4	2.3	2.2	2.1	2.1	2.0	1.9	1.9	1.7	1.6	1.4	1.3	1.2	1.0
Green Valley 46/13.8 T-1 & T-2	50.0	50	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Total 46 kV Capacity	73.5	78.2	6.4	3.4	-0.7	-4.1	-7.6	-11.2	-14.7	-18.3	-25.4	-32.5	-39.6	-46.7	-53.8	-60.9

NOTES:

- 1) Assumes 138 kV radial serving Green Valley and Canoa Ranch is out-of-service
- 2) Green Valley T1 & T2 backup capacity limited by 46kV C-550 source rating.

With this in mind, we should note that the South-Green Valley 138 kV circuit has been extremely reliable, with only one outage since 1997, which reclosed within half a second with little loss of load. The 46 kV system has incurred only three outages on 46-C-550 averaging 80 minutes each, and four outages on 46-C-552 averaging 58 minutes each since 2003. As a result, the likelihood of losing the 138 kV radial at the same time one or more of the 46 kV circuits is out-of-service is extremely remote. Some of these outages were weather related, and such weather tends to cool the area reducing system load, further reducing the likelihood of exceeding the transformer capacity.

The following table demonstrates the number of hours each year that the Green Valley load exceeds the 46 kV back up capacity:

Hours/Year Green Valley Load Exceeds 46 kV Backup Capacity													
CONTINGENCY	2009	2010	2011	2012	2013	2014	2015	2017	2019	2021	2023	2025	2027
2-GV, 2-RW	0	4	25	57	101	166	225	394	590	779	977	1174	1341

And finally, NERC/WECC Planning Standards Table 1, Footnote b), allows for the "planned or controlled interruption of electrical supply to radial customers..." in the unlikely scenario where the 46 kV system is unable to support the load during a 138 kV contingency.

RECOMMENDATION

Based on the discussion above:

- Evaluate the condition of the two 46/13.8 kV, 25 MVA transformers at Green Valley substation and perform any needed maintenance to the units.
 - This evaluation must coordinate with the South T1 replacement and cannot begin until the existing T1 unit is replaced with the portable unit in October, 2006
 - Operations will transfer load at the Green Valley substation as required to provide three months of oil-in-gas monitoring
 - Any needed maintenance would be completed by early 2008.

- Continue to rely on the 46 kV system to back up load for loss of the South-Green Valley-Canoa Ranch radial through 2012. At that time extend the 138 kV circuit from Canoa Ranch to Cyprus Sierrita by spring 2013.

As a result of this study, Local Area Transmission Planning recommends that TEP continue to pursue an extension to the ACC Case 84, Decision No. 59221 that granted TEP a Certificate of Environmental Compatibility (CEC). This extension needs to provide adequate time to complete the 138 kV between Green Valley and Cyprus Sierrita substations by Spring, 2013. The transmission line will follow the path which was agreed upon in the original CEC. Transmission Engineering has completed design for this circuit extension, and approximately 4.5 miles of this circuit has already been completed from Green Valley substation to the vicinity of the planned Canoa Ranch substation site. The additional 8.5 miles to Cyprus Sierrita should be completed, based on the existing forecast, no later than Spring, 2013.

